SOUTHERN PACIFIC COMPANY

PACIFIC LINES

TIME TABLE

FOR THE

TUCSON DIVISION

105

To Take Effect Friday, February 1, 1935, at 12:01 A. M.

MOUNTAIN STANDARD TIME (105th MERIDIAN)

For the government and information of employes only.

A. T. MERCIER,
General Manager.

W. B. KIRKLAND,
Superintendent of Transportation.

L. U. MORRIS,
Assistant General Manager.

WM. WILSON,
Superintendent.

WELLTON SUBDIVISION

EASTWARD

Time Table No. 105

February 1, 1935

	SECOND CLASS					FIRST CLASS					
Capacity of sidings in car lengths	848 Freight	846 Freight	902 Freight	844 Freight	842 Freight	12 Apache	4 Golden State Limited	2 Sunset Limited	Distance from San Francisco		STATIONS
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily			
Yard BKWOTYP	8.55PM	3.15PM	2.00PM	9.10AM	4.30AM	8.45PM	4.20AM	4.10AM	732.7	A.B.S.	TO-R YUMA 4.8
258 P	9.10	3.30	2.15	9.25	4.45	8.55	4.30	4.20	737.5	D.T.	EAST YARD 2.6
67 P	9.15	3.35	2.20	9.30	4.50	8.58	4.33	f 4.24	740.1		ARABY 3.6
72 P	9.21	3.41	2.26	9.36	4.56	9.02	4.37	4.28	743.7		FORTUNA 2.9
67 P	9.26	3.46	2.31	9.41	5.01	9.05	4.40	4.31	746.6		BLAISDELL 6.9
93 Middle P	9.41	4.01	2.46	9.56	5.16	9.17	4.52	4.43	753.5	D.T.	DOME 1.7
84 Spur P									755.2		GRANITE SPUR 5.0
70 Middle P	9.55	4.15	3.00	10.10	5.30	9.27	5.02	4.53	760.2		LIGURTA 7.0
									767.2		ADONDE 2.8
72 WIP	10.20PM	4.40PM	3.25	10.35AM	5.55AM	f 9.39	5.13	f 5.05AM	770.0		TO WELLTON 5.7
78 P			3.37			f 9.48	5.21		775.7		MING 2.0
						f			777.7		YANO 3.2
79 P			3.47			f 9.54	5.27		780.9		ROLL 7.4
34 Spur P						f			788.3		TYSON 4.9
79 P			4.07			f 10.08	5.40		793.2		GROWLER 9.3
81 P			4.25			f 10.18	5.50		802.5		KOFA 5.2
P									807.7		OLANTON 5.0
79 P			4.45			f 10.30	6.01		812.7		HORN 5.0
P									817.7		ATHEL 4.6
80 WOP			5.10			f 10.41	6.11		822.3		TO HYDER 4.7
P									827.0		CAMEL 4.1
78 P			5.30			f 10.58	6.22		831.1		MONTEZUMA 5.7
78 P			5.40			f 11.05	6.28		836.8		PAPAGO 4.3
81 P			5.50			f 11.11	6.33		841.1		SADDLE 8.3
79 P			6.50			f 11.25	6.46		849.4		HARQUA 1.6
78 P			6.55			f 11.27	6.48		851.0		GILLESPIE 5.0
P						f			856.0		CRAG 5.3
81 P			7.15			f 11.39	6.59		861.3		ARLINGTON 4.4
78 P			7.25			f 11.44	7.04		865.7		DIXIE 1.9
12 Spur P						f			867.6		HASSAYAMPA 2.6
6 Spur						f			870.2		PALO VERDE 1.3
78 P			7.35			f 11.51PM	7.10		871.5		CONGER 4.2
81 WP			7.50			f 12.05AM	7.16		875.7		TO BUCKEYE 6.0
78 P			8.05			f 12.14	7.23		881.7		LIBERTY 3.2
P									884.9		NORTON 4.8
79 YP			8.20			f 12.25	7.32		889.7		LITCHFIELD 3.3
97 P			8.26			f 12.29	7.36		893.0		CASHION 1.9
53 P			8.30			f 12.32	7.39		894.9		COWDEN 0.8
8 Spur						f			895.7		TOLLESON 0.6
65 P						f			896.3		JEAN 1.8
77 P			8.45			f 12.38	7.44		898.1		FOWLER 3.9
57 P			9.02			f 12.43	7.48		902.0		CAMPO 2.0
80			9.15			12.47	7.52		904.0		23rd AVE PHOENIX 1.5
									905.5		CROSSING—AT&SF WYE 0.5
Yard BKP						s 12.55AM	s 8.00AM		906.0	D.T.	R PHOENIX 1.0
Yard BKWOTYP			9.30PM						907.0		TO-R PHOENIX YARD
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			(174.3)
	(1.25)	(1.25)	(7.30)	(1.25)	(1.25)	(4.10)	(3.40)	(0.55)			........Time over district........
	26.33	26.33	23.24	26.33	26.33	41.59	47.54	40.69			.......Average speed per hour.......

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
4	Buckeye	Receive	Points scheduled to stop.	
12	Any Station	Receive	Phoenix. Line points (only).	
4	Buckeye	Discharge		Los Angeles

RULES 72 and 73. Second class and extra trains may run ahead of first class trains Phoenix to Phoenix Yard.

WELLTON SUBDIVISION

WESTWARD

Time Table No. 105
February 1, 1935

	STATIONS		Distance from Phoenix	FIRST CLASS			THIRD CLASS
				11 Apache	3 Golden State Limited	1 Sunset Limited	901 Freight
				Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily
TO-R	YUMA	D.T.	174.3	s 3.27 PM	s 1.20 AM	s 12.40 AM	11.45 PM
	4.8						
	EAST YARD	D.T.	169.5	3.17	1.10	12.30	11.30
	2.6						
	ARABY		166.9	3.13	1.05	f 12.25	11.25
	3.6						
	FORTUNA		163.3	3.09	1.00	12.20	11.15
	2.9						
	BLAISDELL		160.4	3.05	12.55	12.15	11.05
	6.9						
	DOME	D.T.	153.5	2.53	12.43	12.03 AM	10.50
	1.7						
	GRANITE SPUR	D.T.	151.8				
	5.0						
	LIGURTA	D.T.	146.8	2.43	12.33	11.53 PM	10.35
	7.0						
	ADONDE	D.T.	139.8				
	2.8						
TO	WELLTON	D.T.	137.0	2.31	f 12.20	11.40 PM	10.15
	5.7						
	MING		131.3	2.22	f 12.10		9.48
	2.0						
	YANO		129.3		f		
	3.2						
	ROLL		126.1	2.16	f 12.03 AM		9.34
	7.4						
	TYSON		118.7		f		
	4.9						
	GROWLER		113.8	2.03	f 11.49 PM		9.15
	9.3						
	KOFA		104.5	1.53	f 11.37		9.01
	5.2						
	CLANTON		99.3				
	5.0						
	HORN		94.3	1.42	f 11.25		8.45
	5.0						
	ATHEL		89.3				
	4.6						
TO	HYDER		84.7	f 1.32	s 11.13		8.30
	4.7						
	CAMEL		80.0				
	4.1						
A. B. S.	MONTEZUMA		75.9	1.22	f 10.58		8.14
	5.7						
A. B. S.	PAPAGO		70.2	1.16	f 10.46		8.05
	4.3						
A. B. S.	SADDLE		65.9	1.11	f 10.40		7.58
	8.3						
A. B. S.	HARQUA		57.6	12.58	f 10.27		7.38
	1.6						
A. B. S.	GILLESPIE		56.0	12.56	f 10.25		7.35
	5.0						
A. B. S.	CRAG		51.0		f		
	5.3						
A. B. S.	ARLINGTON		45.7	12.45	f 10.13		7.15
	4.4						
A. B. S.	DIXIE		41.3	12.40	f 10.06		6.58
	1.9						
A. B. S.	HASSAYAMPA		39.4		f		
	2.6						
A. B. S.	PALO VERDE		36.8		f		
	1.3						
A. B. S.	CONGER		35.5	12.34	f 9.58		6.48
	4.2						
A. B. S. TO	BUCKEYE		31.3	12.25	s 9.46		6.40
	6.0						
A. B. S.	LIBERTY		25.3	12.17	f 9.35		6.28
	3.2						
A. B. S.	NORTON		22.1		f		
	4.8						
A. B. S.	LITCHFIELD		17.3	12.08	f 9.25		6.15
	3.3						
A. B. S.	CASHION		14.0	12.04	f 9.19		6.09
	1.9						
A. B. S.	COWDEN		12.1	12.01 PM	f 9.16		6.05
	0.8						
A. B. S.	TOLLESON		11.3		f		
	0.6						
A. B. S.	JEAN		10.7		f		
	1.8						
A. B. S.	FOWLER		8.9	11.56 AM	f 9.08		5.58
	3.9						
A. B. S.	CAMPO		5.0	11.52	f 9.02		5.50
	2.0						
A. B. S.	23rd AVE. PHOENIX		3.0	11.48	8.58		5.45
	1.5						
A. B. S.	CROSSING—AT&SF WYE		1.5				
	0.5						
A. B. S. R	PHOENIX	D.T.	1.0	11.40 AM	8.50 PM		
	1.0						
A. B. S. TO-R	PHOENIX YARD	D.T.	0.0				5.30 PM
	(174.3)			Leave Daily	Leave Daily	Leave Daily	Leave Daily
	Time over district			(3.47)	(4.40)	(1.00)	(6.15)
	Average speed per hour			45.81	37.35	37.30	27.89

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
11	Buckeye	Receive	Yuma where scheduled to stop	
11	Buckeye	Discharge		Phoenix
3	Any Station	Discharge		Ming

PICACHO SUBDIVISION

EASTWARD

Time Table No. 105

February 1, 1935

Capacity of sidings in car lengths	858	904	856	854	852	376	4	2	12	Distance from San Francisco		STATIONS		
	SECOND CLASS					FIRST CLASS								
	Freight	Freight	Freight	Freight	Freight	Motor	Golden State Limited	Sunset Limited	Apache					
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily Ex. Sunday	Leave Daily	Leave Daily	Leave Daily					
Yard BKP						8.50 AM	8.15 AM		1.15 AM	906.0	R	PHOENIX	1.0	D. T.
Yard BKWOTYP		6.00 PM				8.56	8.21		1.21	907.0	TO-R	PHOENIX YARD	4.1	
19 Spur P		6.12				9.04	8.29		1.29	911.1		KENDALL	0.7	
11 Spur P						f				911.8		TOVREA	2.6	
87 YP		6.22				s 9.10	f 8.34		s 1.35	914.4	TO	TEMPE	0.9	
P		6.27				9.14	8.37		1.38	915.3		TEMPE JCT.	1.8	
35 P		6.32				9.17	8.40		1.41	917.1		NORMAL JCT.	1.3	
										918.4		FRANKENBURG	0.2	
63 Spur										918.6		TEMPE PUMPING PLANT	3.2	
Yard KWYP		6.46				s 9.27	f 8.48		s 1.50	921.8	TO	MESA	1.8	
79 P		6.50				9.30 AM	8.51		1.53	923.6		McQUEEN	1.8	
22 P									f	925.4		TREMAINE	0.7	
40 P		6.55					8.55		f 1.57	926.1		FALFA	3.2	
76 P		7.04					f 9.01		s 2.05	929.3	TO	CHANDLER	1.7	
35 Spur P		7.09					9.04		2.08	931.0		POZO	3.3	
81 P		7.15					9.08		f 2.12	934.3		SERAPE	4.7	
71 P		7.26					9.13		f 2.17	939.0		SANTAN	4.2	
72 P		7.40					9.18		f 2.22	943.2		DOCK	4.9	
34 P		7.50					9.24		f 2.29	948.1		OLBERG	5.1	
79 P		8.00					9.30		f 2.35	953.2		BLACKWATER	5.0	
81 YP		8.08					9.36		f 2.41	958.2		POSTON	3.8	
80 WP		8.23					f 9.44		f 2.51	962.0	TO	COOLIDGE	4.4	A. B. S.
34 P		8.33					9.50		f 2.57	966.4		RANDOLPH	5.0	
72 P		8.41					9.55		f 3.03	971.4		TOPAZ	4.0	
4 Spur P									f	975.4		PEAK	5.2	
102 WOYP	9.30 PM	8.58	3.40 PM	10.30 AM	3.35 AM		10.06	9.12 AM	f 3.15	980.6 937.5	TO	PICACHO	3.2	
73 P	9.45	9.08	3.53	10.45	3.50		10.12	9.17	3.22	940.7		OCATILLA	3.5	
94 P	9.55	9.17	4.02	10.55	4.00		10.16	9.22	3.28	944.2		WYMOLA	3.7	
73 P	10.04	9.26	4.11	11.04	4.09		10.20	9.27	3.33	947.9		MONTROSE	3.5	
69 WP	10.12	9.40	4.20	11.12	4.17		10.24	f 9.33	f 3.39	951.4	TO	RED ROCK	2.9	
72 P	10.18	9.46	4.26	11.18	4.23		10.27	9.38	3.42	954.3		AVRA	4.1	
67 P	10.26	9.53	4.33	11.26	4.31		10.32	9.43	3.47	958.4		NAVISKA	3.8	
71 P	10.33	9.59	4.39	11.33	4.38		10.36	f 9.48	f 3.51	962.2		MARANA	2.4	
100 P	10.38	10.04	4.44	11.38	4.43		10.39	9.52	3.54	964.6		ROSKRUGE	2.3	
165 WP	10.48	10.11	4.54	11.48	4.53		10.42	f 9.57	f 3.58	966.9		RILLITO	3.0	
100 P	10.56	10.18	5.02	11.56 AM	5.01		10.45	10.00	4.02	969.9		SABINO	2.2	
67 P	11.04	10.25	5.10	12.04 PM	5.09		10.48	f 10.04	f 4.05	972.1		CORTARO	2.6	
100 P	11.12	10.32	5.18	12.12	5.17		10.51	10.07	4.08	974.7		KINO	2.7	
67 P	11.19	10.39	5.26	12.19	5.24		10.54	f 10.10	f 4.15	977.4		JAYNES	3.8	
P	11.26	10.46	5.34	12.26	5.31		10.58	10.17	4.22	981.2		STOCKHAM	1.6	D. T.
P										982.8		SOUTH LINE JCT.	1.1	
Yard BKWFITYP	11.40 PM	11.00 PM	5.50 PM	12.40 PM	5.45 AM		s 11.05 AM	s 10.25 AM	s 4.30 AM	983.9	TO-R	TUCSON		
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily	Arrive Daily	Arrive Daily			(121.0)		
	(2.10)	(5.00)	(2.10)	(2.10)	(2.10)	(0.40)	(2.50)	(1.13)	(3.15)			..........Time over district..........		
	21.42	24.00	21.42	21.42	21.42	26.40	42.82	38.14	37.23			........Average speed per hour........		

PICACHO SUBDIVISION

WESTWARD

Time Table No. 105

February 1, 1935

			STATIONS		Distance from Tucson	FIRST CLASS				THIRD CLASS
						11	377	3	1	903
						Apache	Motor	Golden State Limited	Sunset Limited	Freight
						Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily	Arrive Daily	Arrive Daily
A. B. S.	R	PHOENIX	D. T.	1.0	121.0	s 11.30 AM	s 4.40 PM	s 8.35 PM		
	TO-R	PHOENIX YARD		4.1	120.0	11.24	4.34	8.29		11.20 PM
		KENDALL		0.7	115.9	11.16	4.26	8.21		11.05
		TOVREA		2.6	115.2		f			
	TO	TEMPE		0.9	112.6	f 11.10	s 4.20	s 8.15		10.50
		TEMPE JCT.		1.8	111.7	11.06	4.16	8.10		10.35
		NORMAL JCT.		1.3	109.9	11.03	4.13	8.07		10.30
		FRANKENBURG		0.2	108.6					
		TEMPE PUMPING PLANT		3.2	108.4					
	TO	MESA		1.8	105.2	f 10.55	s 4.05	s 7.59		10.10
		McQUEEN		1.8	103.4	10.50	4.00 PM	7.53		9.40
		TREMAINE		0.7	101.6			f		
		FALFA		3.2	100.9	10.46		f 7.49		9.30
	TO	CHANDLER		1.7	97.7	f 10.41		s 7.44		9.20
		POZO		3.3	96.0	10.36		7.36		8.55
		SERAPE		4.7	92.7	10.32		f 7.32		8.45
		SANTAN		4.2	88.0	10.27		f 7.26		8.35
		DOCK		4.9	83.8	10.22		f 7.21		8.25
		OLBERG		5.1	78.9	10.16		f 7.15		8.15
		BLACKWATER		5.0	73.8	10.10		f 7.08		8.00
		POSTON		3.8	68.8	10.04		f 7.02		7.45
	TO	COOLIDGE		4.4	65.0	f 10.00		s 6.58		7.20
		RANDOLPH		5.0	60.6	9.50		f 6.47		7.05
		TOPAZ		4.0	55.6	9.43		f 6.41		6.55
		PEAK		5.2	51.6			f		
	TO	PICACHO		3.2	46.4	9.32		6.30	f 7.00 PM	6.30
		OCATILLA		3.5	43.2	9.26		6.25	6.54	6.16
		WYMOLA		3.7	39.7	9.22		6.21	6.49	6.08
		MONTROSE		3.5	36.0	9.17		6.17	6.44	6.00
	TO	RED ROCK		2.9	32.5	9.13		6.13	f 6.39	5.50
		AVRA		4.1	29.6	9.08		6.10	6.34	5.40
		NAVISKA		3.8	25.5	9.03		6.05	6.29	5.30
		MARANA		2.4	21.7	8.59		6.01	f 6.25	5.21
		ROSKRUGE		2.3	19.3	8.55		5.58	6.21	5.16
		RILLITO		3.0	17.0	8.52		5.55	f 6.18	5.09
		SABINO		2.2	14.0	8.48		5.52	6.14	5.02
		CORTARO		2.6	11.8	8.45		5.49	f 6.11	4.57
		KINO		2.7	9.2	8.41		5.46	6.07	4.52
		JAYNES		3.8	6.5	8.38		5.43	f 6.03	4.47
		STOCKHAM	D. T.	1.6	2.7	8.33		5.38	5.58	4.40
		SOUTH LINE JCT.		1.1	1.1					
	TO-R	TUCSON			0.0	8.25 AM		5.30 PM	5.50 PM	4.30 PM
		(121.0)				Leave Daily	Leave Daily Ex. Sunday	Leave Daily	Leave Daily	Leave Daily
		Time over district				(3.05)	(0.40)	(3.05)	(1.10)	(6.50)
		Average speed per hour				39.24	26.40	39.24	39.77	17.56

Rules 72 and 73. Third class and extra trains may run ahead of No. 377 from McQueen to Mesa, and from Tempe Jct. to Tempe.

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
3	Any Station	Discharge		El Paso
3	Any Station	Receive	Phoenix Line points (only)	
11	Any Station between Tucson and Picacho	Receive	Phoenix Line points (only)	

WELLTON SUBDIVISION

EASTWARD											WESTWARD
	SECOND CLASS				FIRST CLASS			Time Table No. 105 February 1, 1935			FIRST CLASS
Capacity of sidings in car lengths	848 Freight	846 Freight	844 Freight	842 Freight	2 Sunset Limited	Distance from San Francisco				Distance from Gila	1 Sunset Limited
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily			STATIONS			Arrive Daily
72 WIP	10.20PM	4.40PM	10.35AM	5.55AM	5.05AM	770.0	TO	WELLTON	D.T.	85.7	s 11.40PM
								3.1			
73 P	10.30	4.50	10.45	6.05	5.11	773.1		ASHER		82.6	11.30
								3.3			
67 P	10.37	4.57	10.52	6.12	f 5.16	776.4		TACNA		79.3	f 11.24
								3.7			
73 P	10.44	5.04	10.59	6.19	5.20	780.1		GAEL		75.6	11.18
								3.7			
67 P	10.51	5.11	11.06	6.26	f 5.25	783.8		COLFRED		71.9	f 11.13
								4.8			
69 P	**11.06**	5.20	11.15	6.35	5.31	788.6		PEMBROKE		67.1	**11.06**
								4.0			
W88 E70 P	11.22	5.35	11.30	6.50	f 5.37	792.6	TO	MOHAWK		63.1	f 10.59
								3.3			
67 P	11.32	5.45	11.40	7.00	5.42	795.9		KIM		59.8	10.52
								4.6			
67 P	11.40	5.53	11.48	7.08	5.47	800.5		STOVAL		55.2	10.45
								5.7			
92 P	11.49	6.03	11.58AM	7.18	f 5.54	806.2		MUSINA		49.5	f 10.38
								5.7			
67 WP	11.59PM	6.13	12.08PM	7.28	f 6.06	811.9		AZTEC		43.8	f 10.30
								3.9			
100 P	12.06AM	6.20	12.15	7.35	6.11	815.8	A. B. S.	MUGGINS		39.9	10.22
								3.9			
67 P	12.12	6.26	12.21	7.41	6.15	819.7		STANWIX		36.0	10.17
								2.3			
72 P	12.16	6.30	12.25	7.45	6.18	822.0		LAVA		33.7	10.14
								2.9			
						824.9		DELOSA		30.8	
								1.2			
W70 E82 WOP	12.40	6.55	12.50	8.10	f 6.25	826.1	TO	SENTINEL		29.6	s 10.07
								3.5			
76 P	12.50	7.05	1.00	8.20	6.30	829.6		TRIGO		26.1	9.57
								3.5			
67 P	12.57	7.12	1.07	8.27	6.35	833.1		TARTRON		22.6	9.52
								6.8			
67 P	1.08	7.23	1.18	8.38	f 6.43	839.9		PIEDRA		15.8	f 9.43
								5.6			
68 P	1.17	7.32	1.27	8.47	f 6.50	845.5		THEBA		10.2	f 9.35
								4.8			
67 P	1.25	7.40	1.35	8.55	6.56	850.3		SMURR		5.4	9.29
								5.4			
Yard BKWOTP	1.40AM	7.55PM	1.50PM	9.10AM	s 7.05AM	855.7	TO-R	GILA		0.0	9.20PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			(85.7)			Leave Daily
	(3.20) 25.71	(3.15) 26.37	(3.15) 26.37	(3.15) 26.37	(2.00) 42.85			..........Time over district............ ....Average speed per hour........			(2.20) 36.73

EASTWARD PICACHO SUBDIVISION WESTWARD

Capacity of sidings in car lengths	Distance from San Francisco		Time Table No. 105 February 1, 1935 Maricopa Branch STATIONS	Distance from Maricopa
P	915.3		TEMPE JCT.	25.8
			2.4	
21	917.7		PETERSON	23.4
			2.4	
53 P	920.1		HELENA	21.0
			2.9	
YP	923.0		WEST CHANDLER	18.1
			5.5	
2 Spur	928.5		ALICIA	12.6
			3.2	
	931.7		RIVERA	9.4
			1.6	
22 P	933.3		SACATE	7.8
			7.8	
150 WYP	941.1	TO	MARICOPA	0.0
			(25.8)	

EASTWARD WELLTON SUBDIVISION WESTWARD

Capacity of sidings in car lengths	Distance from San Francisco	Time Table No. 105 February 1, 1935 Litchfield Branch STATIONS	Distance from Litchfield Park
79 YP	889.7	LITCHFIELD	5.0
		5.0	
34 22 Spur	894.7	LITCHFIELD PARK	0.0
		(5.0)	

PICACHO SUBDIVISION

EASTWARD											WESTWARD
	SECOND CLASS				FIRST CLASS			Time Table No. 105 February 1, 1935			FIRST CLASS
Capacity of sidings in car lengths	858 Freight	856 Freight	854 Freight	852 Freight	2 Sunset Limited	Distance from San Francisco		STATIONS		Distance from Picacho	1 Sunset Limited
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily						Arrive Daily
Yard BKWOTP	6.10PM	12.35PM	7.25AM	12.30AM	7.15AM	855.7	A. B. S.	TO-R	GILA	81.8	s 9.10PM
									3.4		
67 P	6.22	12.47	7.37	12.42	7.22	859.1			COLEDON	78.4	9.01
									6.0		
70 P	6.35	1.00	7.50	12.55	f 7.31	865.1			BOSQUE	72.4	f 8.52
									4.0		
67 P	6.47	1.12	8.02	1.07	7.38	869.1			OCAPOS	68.4	8.45
									2.7		
76 P	6.57	1.22	8.12	1.17	7.43	871.8			SHAWMUT	65.7	8.41
									2.8		
73 YP	7.10	1.35	8.25	1.30	f 7.48	874.6		TO	ESTRELLA	62.9	f 8.36
									4.8		
68 P	7.18	1.43	8.33	1.38	7.53	879.4			BUCHAN	58.1	8.29
									4.3		
67 P	7.25	1.50	8.40	1.45	f 7.58	883.7			MOBILE	53.8	f 8.22
									4.7		
67 P	7.33	1.58	8.48	1.53	8.03	888.4			ENID	49.1	8.15
									4.4		
67 P	7.40	2.05	8.55	2.00	8.08	892.8			HEATON	44.7	8.09
									5.0		
150 WYP	8.02	2.25	9.15	2.20	f 8.16	897.8		TO	MARICOPA	39.7	s 8.02
									5.1		
67 P	8.15	2.35	9.25	2.30	8.23	902.9			LIRIM	34.6	7.50
									4.8		
72 P	8.25	2.45	9.35	2.40	f 8.29	907.7			BON	29.8	f 7.44
									4.8		
67 P	8.35	2.55	9.45	2.50	8.35	912.5			NUNEZ	25.0	7.38
									6.3		
94 WP	8.50	3.07	9.57	3.02	s 8.48	918.8		TO	CASA GRANDE	18.7	s 7.30
									4.9		
67 P	9.00	3.16	10.06	3.11	8.54	923.7			ARIZOLA	13.8	7.18
									4.7		
68 P	9.10	3.25	10.15	3.20	8.59	928.4			TOLTEC	9.1	7.12
									4.7		
77 P	9.20	3.33	10.23	3.28	f 9.06	933.1			ELOY	4.4	f 7.06
									4.4		
102 WOYP	9.30PM	3.40PM	10.30AM	3.35AM	f 9.12AM	937.5		TO	PICACHO	0.0	7.00PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily				81.8		Leave Daily
	(3.20) 24.54	(3.05) 26.53	(3.05) 26.53	(3.05) 26.53	(1.57) 41.95				……Time over district…… ……Average speed per hour……		(2.10) 37.68

EASTWARD PICACHO SUBDIVISION WESTWARD

Time Table No. 105

February 1, 1935

Creamery Branch

Capacity of sidings in car lengths	Distance from San Francisco		STATIONS	Distance from Normal Jct.
87 YP	914.4	TO	TEMPE	2.1
			1.0	
130 Spur	915.4		CREAMERY	1.1
			1.1	
8 Spur	916.5		NORMAL JCT.	0.0
			(2.1)	

EASTWARD PICACHO SUBDIVISION WESTWARD

Time Table No. 105

February 1, 1935

Florence Branch

Capacity of sidings in car lengths	Distance from San Francisco	STATIONS	Distance from Florence Jct.
81 YP	958.2	POSTON	6.5
		3.8	
3 Spur P	962.0	PARSONS	2.7
		2.7	
P	964.7	FLORENCE JCT.	0.0
		(6.5)	

EASTWARD

BOWIE SUBDIVISION

WESTWARD

Capacity of sidings in car lengths	SECOND CLASS						FIRST CLASS			Distance from San Francisco			Time Table No. 105 February 1, 1935		Distance from Lordsburg	FIRST CLASS
	964 Freight	866 Freight	864 Freight	962 Freight	960 Freight	862 Freight	4 Golden State Limited	2 Sunset Limited	12 Apache				STATIONS			1 Sunset Limited
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily							Arrive Daily
Yard BKWFTYP	4.25PM	3.45PM	7.30AM	7.00AM	1.00AM	12.05AM	11.17AM	10.45AM	4.50AM	983.9	A. B. S	TO-R	TUCSON	Track No. 2		See Rio Grande Division Time Table.
										984.7			0.8 T. N. R. R. JCT.			
2 Spur	4.38	3.58	7.43	7.13	1.13	12.18	11.27	10.55	5.00	987.4			2.7 POLVO			
66 P	4.46	4.05	7.50	7.21	1.21	12.25	11.32	11.00	5.05	990.7			3.3 WILMOT			
66 P	4.55	4.13	7.58	7.30	1.30	12.33	11.38	11.06	5.11	993.8			3.1 RANKIN			
67 P	5.07	4.23	8.08	7.42	1.42	12.43	11.46	f 11.14	5.19	998.6			4.8 ESMOND			
66 P	5.20	4.35	8.20	7.55	1.55	12.55	11.54AM	f 11.22	5.27	1003.3			4.7 VAIL			
66 P	5.33	4.47	8.32	8.08	2.08	1.07	12.04PM	11.32	5.37	1008.5			5.2 IRENE			
84 WP	5.56	4.57	8.42	8.31	2.31	1.17	12.11	f 11.40	5.44	1012.6			4.1 PANTANO			
66 P	6.06	5.06	8.51	8.41	2.41	1.26	12.17	11.46	5.50	1016.1			3.5 BUELL			
66 P	6.16	5.15	9.00	8.51	2.51	1.35	12.24	11.53AM	5.57	1019.7			3.6 AMOLE			
E94 W81 CIYP	6.30PM	5.30	9.15	9.05AM	3.05AM	1.50	12.32PM	f 12.01PM	6.05AM	1023.6		TO-R	3.9 MESCAL		124.7	f 4.25PM
81 P		5.40	9.25			2.00		12.08		1028.2			4.6 CHAMISO		120.1	4.16
E125 W74 KW-OYP		6.00	9.45			2.20		s 12.20		1032.6		TO	4.4 BENSON		115.7	s 4.06
66 P		6.12	9.57			2.32		12.27		1035.8			3.2 FENNER		112.5	3.54
87 P		6.23	10.08			2.43		12.34		1038.5			2.7 CURVO		109.8	3.48
78 WP		6.34	10.19			2.54		f 12.42		1041.0			2.5 SIBYL		107.3	f 3.42
66 P		6.43	10.28			3.03		12.48		1043.9			2.9 TULLY		104.4	3.37
66 P		6.52	10.37			3.12		f 12.55		1047.3			3.4 OCHOA		101.0	f 3.31
66 P		7.01	10.46			3.21		1.01		1050.8			3.5 LANCHA		97.5	3.25
E69 W68 YP		7.14	10.59			3.34		s 1.09		1053.9		TO	3.1 DRAGOON		94.4	s 3.20
86 P		7.26	11.11			3.46		1.15		1058.3			4.4 MANZORO		90.0	3.11
94 P		7.35	11.20			3.55		s 1.24		1063.9		TO	5.6 COCHISE		84.4	f 3.02
66 P		7.44	11.29			4.04		1.31		1069.6			5.7 HADO		78.7	2.54
70 WP		8.00	11.45			4.20		s 1.41		1074.7		TO	5.1 WILLCOX		73.6	s 2.47
64 P		8.12	11.57AM			4.32		1.48		1079.4			4.7 DRURY		68.9	2.37
105 YP		8.23	12.08PM			4.43		f 1.54		1082.6			3.2 RASO		65.7	f 2.32
68 P		8.32	12.17			4.52		2.01		1087.7			5.1 ALRICH		60.6	2.24
66 P		8.38	12.23			4.58		2.06		1091.0			3.3 LUZENA		57.3	2.17
66 P		8.44	12.29			5.04		**2.12**		1094.5			3.5 CHOLLA		53.8	**2.12**
E116 W121 KW-FYP		9.05	12.50			5.25		s 2.32		1098.4		TO-R	3.9 BOWIE		49.9	s 2.02
66 P		9.17	1.02			5.37		2.39		1102.6			4.2 HOLT		45.7	1.45
66 P		9.25	1.10			5.45		f 2.44		1106.6			4.0 OLGA		41.7	f 1.40
66 P		9.32	1.17			5.52		2.49		1110.2			3.6 KARRO		38.1	1.35
66 BKW-FYP		9.39	**1.30**			5.59		s 2.56		1114.2		TO	4.0 SAN SIMON		34.1	s **1.30**
66 P		9.53	1.38			6.13		3.01		1117.6			3.4 BAWTRY		30.7	f 1.25
77 P		10.05	1.50			6.25		3.08		1121.8			4.2 VANAR		26.5	1.19
74 P		10.17	2.02			6.37		3.15		1125.0			3.2 CAVOT		23.3	1.14
E68 W74 YP		10.39	2.24			6.59		f 3.25		1128.9			3.9 STEINS		19.4	f 1.06
65 P		10.53	2.38			7.13		3.31		1132.7			3.8 MONDEL		15.6	1.00
65 P		11.01	2.46			7.21		3.36		1136.5			3.8 CONRAD		11.8	12.55
66 P		11.12	2.57			7.32		f 3.42		1140.8			4.3 GARY		7.5	f 12.49
66 P		11.19	3.04			7.39		3.47		1143.9			3.1 PYRA		4.4	12.44
Yard BKWFTYP		11.30PM	3.15PM			7.50AM		s 3.55PM		1148.3		TO-R	4.4 LORDSBURG		0.0	12.37PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily				(164.4)			Leave Daily
	(2.05) 19.06	(7.45) 21.21	(7.45) 21.21	(2.05) 19.06	(2.05) 19.06	(7.45) 21.21	(1.15) 31.76	(5.10) 31.80	(1.15) 31.76				……Time over district…… ……Average speed per hour……			(3.48) 32.82

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)
12	Any Station	Receive	Miramonte	
12	Any Station	Discharge		Phoenix Line points (only)

PICACHO SUBDIVISION

Capacity of sidings in car lengths		EASTWARD FIRST CLASS 376 Motor Leave Daily Ex. Sunday	Distance from San Francisco		Time Table No. 105 February 1, 1935 Christmas Branch STATIONS		Distance from Christmas	WESTWARD FIRST CLASS 377 Motor Arrive Daily Ex. Sunday
79	P	9.30AM	923.6		McQUEEN	3.4	86.9	4.00PM
46		s 9.39	927.0	TO	GILBERT	5.0	83.5	s 3.52
27	P	f 9.49	932.0		HIGLEY	3.6	78.5	f 3.43
10		f	935.6		GERMANN	2.5	74.9	f
15		f	938.1		RITTENHOUSE	3.5	72.4	f
55	P	f 10.08	941.6		QUEEN CREEK	8.2	68.9	f 3.26
45		s 10.25	949.8		MAGMA	6.7	60.7	s 3.12
	P	10.38	956.5		FLORENCE JCT.	2.5	54.0	2.57
28	WP	s 10.48	959.0	TO	FLORENCE	0.5	51.5	s 2.52
6	Spur		959.5		STANCO	2.3	51.0	
		f	961.8		BARR	4.9	48.7	f
		f	966.7		MUNN	1.6	43.8	f
			968.3		DIVERSION	0.7	42.2	
27		f 11.08	969.0		PRICE	6.2	41.5	f 2.31
27	P	f 11.23	975.2		COCHRAN	4.5	35.3	f 2.17
		f	979.7		BUTTES	3.4	30.8	f
26	P	f 11.42	983.1		ZELLWEGER	1.5	27.4	f 1.59
		11.47	984.6		WOOLEY	3.2	25.9	1.54
Yard	P	s 11.58AM	987.8		RAY JUNCTION	1.2	22.7	s 1.46
			989.0		ERMAN	5.9	21.5	
32	P	f 12.15PM	994.9		BRANAMAN	4.3	15.6	f 1.27
	Y		999.2		BURNS WYE	0.5	11.3	
36		12.26	999.7		BURNS	0.5	10.8	1.14
Yard	WOP	s 12.30	1000.2		HAYDEN JCT.	1.9	10.3	s 1.12
17	KP	s 12.40	1002.1	TO	HAYDEN	1.4	8.4	s 1.05
15	P	s 12.45PM	1003.5		WINKELMAN	1.2	7.0	1.00PM
			1004.7		ROCK QUARRY	2.3	5.8	
			1007.0		FINNEY	2.4	3.5	
			1009.4		RUDO	1.1	1.1	
43	P		1010.5		CHRISTMAS		0.0	
		Arrive Daily Ex. Sunday			(86.9)			Leave Daily Ex. Sunday
		(3.15)			Time over district			(3.00)
		24.58			Average speed per hour			26.63

Rule S-72 Exception, No. 376 is superior to No. 377

PICACHO SUBDIVISION

Capacity of sidings in car lengths		EASTWARD SECOND CLASS 870 Local Freight Leave Daily Ex. Sunday	EASTWARD FIRST CLASS 378 Mexican Express Leave Daily Ex. Sunday	Distance from San Francisco		Time Table No. 105 February 1, 1935 Nogales Branch STATIONS		Distance from Nogales	WESTWARD FIRST CLASS 379 Mexican Express Arrive Daily Ex. Sunday	WESTWARD THIRD CLASS 871 Local Freight Arrive Daily Ex. Sunday
Yard	BKWFTYP	9.00AM	11.10AM	983.9	TO-R	TUCSON	0.8	65.9	s 4.45PM	4.20PM
				984.7		T. & N. R. R. JCT.	2.2	65.1		
	P	9.15	11.22	986.9		SOUTH LINE CROSSING	3.0	62.9	4.32	4.05
60	P	9.25	f 11.28	989.9		AGUIRRE	3.9	59.9	f 4.26	3.55
60	P	9.35	11.34	993.8		XAVIER	4.8	56.0	4.20	3.45
60	P	9.45	11.42	998.6		FELIX	3.8	51.2	4.12	3.35
120	P	10.00	f 11.49	1002.4		SAHUARITA	4.6	47.4	f 4.05	3.25
	P	10.10	11.57AM	1007.0		HARTT	3.4	42.8	3.57	3.15
13	P	10.20	f 12.03PM	1010.4		CONTINENTAL	1.7	39.4	f 3.51	3.05
63	P	10.30	12.06	1012.1		MORALES	1.5	37.7	3.48	3.00
				1013.6		HACKETT	2.7	36.2		
62	P	10.40	f 12.13	1016.3		CANOA	4.8	33.5	f 3.41	2.50
62	P	10.55	s 12.23	1021.1	TO	AMADO	4.5	28.7	s 3.32	2.40
61	P	11.05	f 12.31	1025.6		CHAVEZ	2.5	24.2	f 3.24	2.25
			f	1028.1		SOTOS CROSSING	1.5	21.7	f	
61	P	11.20	f 12.38	1029.6		TUBAC	4.6	20.2	f 3.17	2.15
62	P	11.30	f 12.46	1034.2		OTERO	3.2	15.6	f 3.09	2.05
62	P	11.40	f 12.51	1037.4		SILVA	2.7	12.4	f 3.04	1.55
95 Spur	P	11.50AM	f 12.56	1040.1		CALABASAS	2.4	9.7	f 2.59	1.45
7				1042.5		PLOMO	7.3	7.3		
Yard	BKWFTP	12.30PM	s 1.20PM	1049.8	TO-R	NOGALES		0.0	2.35PM	1.20PM
		Arrive Daily Ex. Sunday	Arrive Daily Ex. Sunday			(65.9)			Leave Daily Ex. Sunday	Leave Daily Ex. Sunday
		(3.30)	(2.10)			Time over district			(2.10)	(3.00)
		18.83	30.42			Average speed per hour			30.42	21.97

Rule S-72 Exception, No. 378 is superior to No. 379.

EASTWARD BOWIE SUBDIVISION WESTWARD

	SECOND CLASS	FIRST CLASS					Time Table No. 105		FIRST CLASS			SECOND CLASS	
Capacity of sidings in car lengths	884 Local Freight			382 Motor	Distance from San Francisco		February 1, 1935 Globe Branch	Distance from Bowie	381 Motor			883 Local Freight	
	Leave Tues., Thurs. & Sat.			Leave Daily			STATIONS		Arrive Daily			Arrive Mon. Wed. & Fri.	
Yard BKWYFP	8.00AM			2.45PM	1098.4	TO-R	BOWIE	0.0	s 1.20PM			2.20PM	
56 P	8.25			3.03	1107.4		9.5 ESCALA	9.5	12.54			1.55	
P					1112.5		5.1 ARKILL	14.6					
44 P	8.50			f 3.19	1117.8		5.3 TANQUE	19.9	f 12.35			1.30	
50 P	9.05			3.31	1125.1		7.3 HAECKEL	27.2	12.22			1.10	
55 P	9.25			s 3.44	1132.6	TO	7.5 SOLOMON	34.7	s 12.10PM			12.50	
20					1135.3		2.7 LONE STAR	37.4					
53 WP	10.10			s 3.57	1137.5	TO	2.2 SAFFORD	39.6	s 11.59AM			12.30PM	
34 P	10.40			s 4.06	1140.6	TO	3.1 THATCHER	42.7	s 11.48			11.59AM	
5				f	1143.1		2.5 CENTRAL	45.2	f				
27 YP	11.18			s 4.17	1145.6	TO	2.5 PIMA	47.7	s 11.38			11.45	
66 P	11.34			4.21	1146.7		1.1 DUBLIN	48.8	11.34			11.34	
4				f	1148.9		2.2 GLENBAR	51.0	f				
60 P	11.50AM			f 4.32	1153.0		4.1 CORK	55.1	f 11.24			11.05	
2 Spur				f	1154.8		1.8 ASHURST	56.9	f				
61 P	12.10PM			s 4.45	1159.3	TO	4.5 FT. THOMAS	61.4	s 11.13			10.50	
56 CWP	12.25			f 4.54	1164.2		4.9 GERONIMO	66.3	f 11.03			10.35	
58 P	12.40			f 5.05	1170.1		5.9 BYLAS	72.2	f 10.51			10.20	
54 P	12.57			f 5.17	1176.8		6.7 CALVA	78.9	f 10.39			10.02	
58 P	1.15			5.29	1183.7		6.9 NACHES	85.8	10.27			9.45	
55 P	1.40			5.45	1191.0		7.3 DILI	93.1	10.09			9.25	
P				f	1197.2		6.3 PERIDOT	99.4	f				
57 WP	2.05			s 6.03	1201.0	TO	3.8 SAN CARLOS	103.2	s 9.52			8.55	
42 P	2.25			6.17	1207.8		6.8 REPPY	110.0	9.39			8.35	
43 P	2.45			f 6.31	1213.5		5.7 CUTTER	115.7	f 9.29			8.20	
21 P	3.05			6.48	1219.3		5.8 PINAL	121.5	9.17			7.58	
Yard BKWFTP	3.20PM			s 6.55PM	1221.5	TO-R	2.2 GLOBE	123.7	9.10AM			7.45AM	
5					1224.0		2.5 HAMM	126.2					
					1225.3		1.3 KINGDON	127.5					
13 P					1226.2		0.9 RADIUM	128.4					
3 Spur					1227.3		1.1 BURCH	129.5					
P					1229.3		2.0 KISER	131.5					
16					1230.2		0.9 CLAYPOOL	132.4					
Yard WYP					1231.9	TO-R	1.7 MIAMI	134.1					
					1233.0		1.1 INSPIRATION JCT.	135.2					
					1234.2		1.2 LIVE OAK	136.4					
	Arrive Tues., Thurs. & Sat.			Arrive Daily			(136.4)		Leave Daily			Leave Mon. Wed. & Fri.	
	(7.20)			(4.10)			Time over district		(4.10)			(6.35)	
	16.87			29.69			Average speed per hour		29.69			18.79	

SPECIAL INSTRUCTIONS "SAFETY"

RULE 2. The following are designated watch inspectors:

S. A. Pope, Manager of Time Service	65 Market St., San Francisco
Yuma	Wm. Baird
Phoenix	H. H. Howard
Tucson	Greenwald & Adams
Tucson	H. L. Tucker
Nogales	E. M. Mather
Lordsburg	H. H. Conder
Globe	J. G. Cubitto
Miami	J. G. Cubitto, Jr.

RULE 5. Schedule time and train orders apply at junction switch at Picacho. First class trains meeting at Gila take siding at passenger station.

RULE 14. Other engine whistle signals:

For diverging route, one short, one long, one short.

For siding, one long, one short, one long.

RULE 14 (d). As specified below, four long, one short sounds of whistle will be indication that flagman may return from West as prescribed by Rule 99:

Maricopa, Trains on Maricopa Branch.
Trains on Second Main Track Phoenix Yard to Kendall.
Normal Jct., Trains on Creamery Branch.
Florence Jct., Trains on Florence Branch.
Picacho, Trains on Phoenix Line.
Trains leaving these junctions in opposite direction use 14 (e).

RULE 14 (e). As specified below, six long sounds of whistle will be indication that flagman may return from East as prescribed by Rule 99:

Wellton, Trains on Phoenix Line.
Litchfield, Trains on Litchfield Branch.
Trains on Second Main Track Kendall to Phoenix Yard.
Tempe, Trains on Creamery Branch.
Tempe Jct., Trains on Maricopa Branch.
McQueen, Trains on Christmas Branch.
Poston, Trains on Florence Branch.
T. & N. R. R. Jct., Trains on Nogales Branch.
Mescal, Trains on Rio Grande Division.
Bowie, Trains on Globe Branch.
Trains leaving these junctions in opposite direction use 14 (d).

RULE 14 (m). At Phoenix as follows: eastward at 23rd Avenue; westward at 24th Street; instead of at station one mile board.

RULE S-72. Westward trains are superior to trains of the same class in the opposite direction.

RULE 83.

East Yard, Rule 83, as it applies to the passing from double to single track, is modified permitting the registration of trains on Yuma register to apply at East Yard. If identification of trains on double track is made between Yuma and East Yard it will not be necessary to obtain a train order check of the same trains before passing from double to single track. Trains moving in opposite directions must reduce speed sufficiently to permit identification. Rule 14 (k) must be applied.

Dome, Rule 83 will not apply at end of double track, provided a prior check has been obtained or if identification made between Wellton and Dome. Trains moving in opposite directions must reduce speed sufficiently to permit identification. Rule 14 (k) must be applied.

Phoenix, trains may identify each other on double track and on second main track and main track between Phoenix Yard and Kendall. Trains moving in opposite directions must reduce speed sufficiently to permit identification. Rule 14 (k) must be applied.

Stockham, Rule 83, as it applies to the passing from double to single track, is modified permitting the registration of trains on Tucson register to apply at Stockham. If identification of trains on double track is made between Tucson and Stockham it will not be necessary to obtain a train order check of the same trains before passing from double to single track. Trains moving in opposite directions on the double track must reduce speed sufficiently to permit identification. Rule 14 (k) must be applied.

RULE 83 (A). Phoenix—Only first class trains register.

RULE 83 (B).

Phoenix Yard—First class trains register by ticket.

Tucson—Engineers of light engines from east will leave register ticket form 2642 with engine dispatcher for operator for registration.

Mescal—Regular and extra trains will register by ticket.

RULE 93.

Yard limits—Are defined by yard limit signs at the following stations: Yuma, Phoenix, Mesa, Ray Jct., Hayden Jct., Gila, Tucson, Nogales, Benson, Bowie, Lordsburg, Safford, Globe, Miami.

Portions of main track not protected by automatic block signals are located and described as follows:

Phoenix—Freight main track. Eastward between "Block signal limit" sign on mile post 905.8 and dwarf light signal 9064. Westward between "End of block" sign at mile post 906.2 and home signal 9055.

Union Station tracks—Eastward between "End of block" sign opposite dwarf light signal 9059 and dwarf light signal 9064. Westward between "End of block" sign at mile post 906.2 and dwarf light signal 9059.

Tucson—Passenger track No. 1 (first track north of station), and eastward main track, (second track north of station). Eastward between "End of block" sign at mile post 983.6 and dwarf light signal 9838. Westward between "End of block" sign opposite dwarf light signal 9838 and home signal 9835. Westward main track (third track north of station) between "End of block" sign at mile post 984.1 and home signal 9835.

Comply with third paragraph Rule 93 within these specified limits.

RULE 98. Railroad crossings not interlocked.

South Line Crossing.—Gate with red signal normal position across South Line track. Before changing position of gate and making movement on South Line track, protect in each direction on Nogales Branch as per Rule 99.

RULE 103-A.

Yuma—Trains and engines must stop and be preceded by a flagman before crossing 1st, 2d, 3rd, and 4th Streets. Engines must be attached to cars handled over crossings.

A flagman must precede all movements over:

Tempe, Creamery Branch, Mill Ave. and 8th St.

Tucson, Congress St.

Nogales, Court St.

Globe, Mesquite, Hackney, and Murphy Sts.

Miami, Mills St., Latham Blvd., and Adonis Ave.

RULE 103-B.

Back-up hose must be used by yard engines making back up movements with cars:

Tucson, between North and South yards.

Globe, when delivering cars to O. D. Co. transfer.

RULE 104.

East Yard, normal position oil buffer spring switch end double track, for trains entering the double track.

Dome, normal position of oil buffer switch at end of double track, for trains entering double track.

Phoenix Yard, oil buffer switches located west end freight main track, just east A. T. & S. F. wye, and east end double track.

McQueen, normal position of Christmas Branch switch near east end siding for Christmas Branch.

Maricopa, scale track switches are lined for through train movement Maricopa Branch, connecting with track No. 3 to initial switch Picacho Subdivision. These tracks must be kept clear of cars and switches left lined accordingly.

Picacho, operators, when on duty, will handle switches near train-order office for movements to and from Phoenix Line and siding.

Stockham, normal position of oil buffer spring switch end double track, for trains entering the double track.

DERAILS IN MAIN TRACK AS FOLLOWS:

Christmas, 250 feet east of west switch.

Nogales, 579 feet west of west switch, may be run through by eastward trains.

South Line Crossing, 165 feet east on South Line.

RULE 105.

THE FOLLOWING TRACKS ARE DESIGNATED FOR USE AS SIDINGS AT THESE STATIONS:

Fowler	Track north of main track.
Ray Junction	Track south of main track.
Mohawk	First track north of main track.
Sentinel	Track north of main track, westward trains except first class.
	Track south of main track, eastward trains and westward first class.
Red Rock	Track north of main track.
Benson	Track north of main track, eastward trains.
	Track south of main track, east of station, westward trains.
Dragoon	Track north of main track, eastward trains.
	Track south of main track, westward trains.
Bowie	Track north of main track, extending from west switch to switch just east of station, eastward trains.
	Track north of main track, extending from east switch to switch just east of station, westward trains.
Steins	First track north of main track, westward trains.
	Second track north of main track, eastward trains.
San Carlos	First track north of main track.

RULE 221.

Light will not be displayed in train order signals Christmas, Nogales, and Globe Branches as required by Rule 221 except when train orders are to be delivered.

Trains must obtain clearance before leaving Tempe to or from Creamery Branch, Maricopa to or from Maricopa Branch, Bowie, Globe, Miami.

Trains originating at Phoenix must obtain a clearance before leaving Phoenix Yard. Trains originating Hayden Jct. must obtain a clearance at Hayden.

RULE 221 (A):

It is unnecessary for dispatchers to O. K. a clearance and operators to transmit the address and order numbers from clearance to the train dispatcher, unless requested to do so by train dispatcher, nor will they complete that portion of clearance (Form CS-2643) reading:

"OK at..........M..........Chief Train Dispatcher," all provided that said orders affect movement of a train wholly within block system or signal dispatching limits.

If the orders affect movement, either wholly or in part, outside of the block system or signal dispatching limits, operators must repeat address and order numbers and obtain dispatcher's OK before the orders are delivered.

RULE 825.

Tucson, at least 15 hand brakes must be set on west end and 10 hand brakes on east end of all freight trains arriving North yard. At least 7 hand brakes must be set on west end of each cut of cars in P. F. E. yard, and on S. P. tracks Nos. 1, 2, and 3 at least 15 hand brakes must be set on west end. These brakes must be set with brake club after train or cut has stopped. An employe releasing any of these brakes will be held responsible to see that the same number are set before releasing.

Tucson, on passenger trains after engine is spotted for taking oil, two hand brakes must be set on the head end and two on rear end. If necessary to detach engine after these hand brakes have been released, employe before detaching engine must see that sufficient hand brakes have again been set.

RULE 880.

Engineers who have had less than 610 days' actual experience as engineers in freight service and less than 60 days' experience on the division must not be used in passenger service.

When engineers with less than 610 days' experience and less than 60 days' service as engineers on the district and firemen of less than one year's experience stand to help or double head a passenger train, they must handle the engine next to the train, the experienced men handle the leading engine.

METHOD OF TRAIN DISPATCHING BETWEEN TUCSON AND MESCAL

(A) Rio Grande Division, North Line, dispatchers will handle eastward track (No. 2) and Rio Grande Division, South Line, dispatchers will handle westward track (No. 1) between Tucson and Mescal. Double track forms D-R and D-S must not be used. In event it becomes necessary to move a train against the current of traffic, it must be run extra, specifying the track to be used and single track rules will apply between such train and those moving normally. Dispatchers must create work extras only on their respective tracks.

(B) Rio Grande Division, North Line, dispatchers may issue orders under form G example 1, and forms F and K applying westward Mescal to Tucson over westward track (No. 1).

(C) Rio Grande Division, South Line, dispatchers may issue orders under form G example 1, and forms F and K applying eastward Tucson to Mescal over eastward track (No. 2).

(D) Before moving an eastward extra against the current of traffic on westward track (No. 1), a transfer of orders issued under form G example 1, and forms F and K applying between Mescal and Tucson must be obtained from dispatcher of eastward track (No. 2).

(E) Before moving a westward extra against the current of traffic on eastward track (No. 2), a transfer of orders issued under form G example 1, and forms F and K applying between Tucson and Mescal must be obtained from dispatcher of westward track (No. 1).

(F) Rio Grande Division eastward trains must obtain two clearances before leaving Tucson, one marked Tucson Division and one marked Rio Grande Division.

RULE 83 (D) will not apply at Mescal. Trains will be governed by the train order signal.

TRAIN AND AIR INSPECTION

AIR BRAKE RULE 13.

At lay-over points for passenger equipment, where there are no car inspectors, crews must make air brake test before starting on initial trip, as follows: Brake pipe must be fully charged, engineer then apply air brake; trainmen must examine each car to see whether all brakes are applied. If all brakes apply, trainmen must give signal 16-E from rear car, examine each car in train to see that all brakes release, and report condition to the engineer.

AIR BRAKE RULE 16.

Running air brake test must be made at:

Mohawk
Estrella (Westward)
Harqua (Westward)
Mescal (Eastward)
Dragoon (Westward)
Steins (Westward)
Pinal

AIR BRAKE RULE 17.

Standing air brake test must be made by freight and mixed trains immediately before departure at:

Buchan or Estrella (Westward)
Mescal (Eastward)
Dragoon
Steins
Pinal

AIR BRAKE RULE 56.

Retainers will be used on grades on freight trains of less than 100 Ms per operative brake, when necessary in the judgment of conductor and engineer and on trains of 100 Ms or more per operative brake as follows:

1.4% to 1.5% incl. one retaining valve for every 150 Ms.

Over 1.5% to 1.8% incl. one retaining valve for every 140 Ms.

Over 1.8% to 2.2% incl. one retaining valve for every 120 Ms.

Over 2.2% incl. one retaining valve for every 100 Ms.

Where retainers are used the rate of speed of freight trains on any grade of over one per cent must not exceed 25 miles per hour, and on grades of this character, MORE THAN FIVE MILES LONG, FOR THE FIRST FIVE MILES THE TIME CONSUMED IN TRAVELING ANY ONE MILE SHALL NOT BE LESS THAN THREE MINUTES. This will not be authority to exceed specified speed restrictions.

PICACHO SUBDIVISION

Hayden Mills to Hayden Junction	2.2%

NORTH LINE—EASTWARD

M. P. 1023.6 to 1033.2	1.4%
M. P. 1128.8 to 1131.6	1.4%

WESTWARD

M. P. 1128.8 to 1118.5	1.4%
M. P. 1041.5 to 1033.9	1.4%

GLOBE BANCH—EASTWARD

M. P. 1219.0 to 1220.7	2%
M. P. 1221.6 to 1221.7	1.5%
M. P. 1222.1 to 1222.8	2%
M. P. 1226.3 to 1226.7	1.5%
M. P. 1228.8 to 1229.2	1.4%

WESTWARD

M. P. 1234.1 to 1232.6	3%
M. P. 1231.0 to 1230.8	1.4%
M. P. 1229.2 to 1228.8	1.4%
M. P. 1219.0 to 1213.9	2.2%

RULE 827. Freight trains between Yuma and Tucson via either the Gila or the Phoenix lines may run not to exceed a distance of 65 miles and on other lines not to exceed a distance of 55 miles without stopping for inspection. This does not relieve trainmen, however, from making inspection when stops permit and other points specified in timetable or whenever it is necessary in the judgment of conductor or engineer.

Freight trains on descending grade must stop five minutes for inspection at:

Saddle or Papago
Ocapos or Bosque
Mescal (Eastward)
Tully or Sibyl
Dragoon
Cochise, Hado or Willcox
Bawtry or San Simon
Steins
Cutter

AUTOMATIC BLOCK SYSTEM

When eastward trains are to meet or wait for opposing trains while occupying main track at Kendall, such trains will stop west of signal 9112.

Eastward trains on second main track will be governed by position of signals 9112 and 9113 before entering main track.

Account no overlap on light signal 9838 located at end of block just east of Tucson yard office, and no overlap on light signal 9841 located just west of car shop on Nogales Branch, trains and engines moving between these signals, also trains and engines moving on what is used as main track between west end of car shed and light signal 9838, must do so with extreme caution.

When a block signal indicates stop on track No. 2, trains may proceed as follows:

Eastward trains Tucson to Mescal will be governed by Rule 509 applicable to double track.

Westward trains Mescal to Esmond will be governed by Rule 509 applicable to single track.

Westward trains Esmond to Tucson will have no block signal protection after passing signal 9978 located one-half mile west of west switch Esmond.

Between Tucson and Polvo, automatic signals are on the left and signals used by trackmen will be placed on the left of the track in the direction of movement.

RULE 509. When a block signal in advance of facing point oil buffer spring switch indicates "Stop," careful examination of switch must be made before passing over it.

RULE 516. Overlaps located at:

Tyson—(Overlap on signal 7852) Eastward trains.
Clanton—(Overlap on signal 8105) Westward trains.
Athel—(Overlap on signal 8203) Westward trains.
Camel—(Overlap on signal 8293) Westward trains.
Gillespie—(Overlap on signal 8496) Eastward trains.
Crag—(Overlap on signal 8589) Westward trains.
23rd. Ave. Phoenix—(Overlap on signal 9022) Eastward trains.
(Overlap on signals 9053 and 9055) Westward trains.
McQueen—(Overlap on signal 9218) Eastward trains.
Roskruge—(Overlap on signal 9626) Eastward trains.
(Overlap on signal 9657) Westward trains.
Cortaro—(Overlap on signal 9704) Eastward trains.

INTERLOCKING

WELLTON

The two crossover switches 4,000 feet east and the two crossover switches 400 feet west of station are operated by signal operator.

Limits extend from two-arm signal on Gila Line and two-arm signal on Phoenix Line 4,000 feet east of station to light signal on westward track 400 feet west of station and to two-arm signal on eastward track 1,000 feet west of station.

The derail at east end of siding is electrically locked, and can be operated by trainmen only when released by signal operator.

Switches and derails to spurs leading from westward main track just west and east of station are hand-thrown. Trains or engines before entering main track from these spurs must receive authority from signal operator.

TUCSON, SIXTH AVENUE

Limits on westward track extend from dwarf signal at derail to signal 9835, and on eastward track from dwarf signal opposite signal 9835 to dwarf signal 500 feet east.

Signals permitted by Rule 628 may be given from tower.

MESCAL

Interlocking signals of the Rio Grande Division will display indication in the upper quadrant.

Limits are between home signals governing east switch of east crossover and west switch of west crossover of the Rio Grande Division, and home signals governing east switches and west switches of sidings of the Tucson Division. Switches are controlled by signal operator, except switch leading from north siding to cinder and well spurs from south siding to both legs of wye and to west end of coal track.

Switch and derail east end coal track are hand-thrown but must not be used until permission is secured from signal operator.

Where yellow hand signals cannot be seen, trains stopped will call the signal operator and secure permission to proceed; also to throw switch by hand in event the remote control appliance is inoperative.

Whistle signals as follows:

Eastward trains enroute Tucson Division—two short, one long and two short.

Eastward trains enroute Rio Grande Divisions—one long and four short.

Eastward trains for south siding—one short, one long and one short.

Eastward trains south siding to Tucson Division—two short, one long and one short.

Eastward trains south siding to Rio Grande Division—one short, one long and two short.

Westward trains north siding to No. 1 track—two long and two short.

Westward trains Tucson Division enroute No. 1 track—one short and two long.

Westward trains Tucson Division enroute north siding—two short and two long.

Westward Rio Grande Division trains enroute No. 1 track—one long, one short and one long.

Westward trains from Rio Grande Division through east crossover and Tucson Division to No. 1 track—one short, two long and one short.

The beginning of the Tucson Division single track is at east switch of west crossover. The beginning of the Rio Grande Division single track is at east switch of east crossover.

MISCELLANEOUS

In all cases where it is necessary to make a short move with heavy freight train to reach water or oil column, including that required to spot second engine of double-headed train, locomotive must be cut off before spotting at column.

When necessary to handle passenger equipment except official cars in freight trains, it must be placed next to caboose, providing rear end freight cars in train will permit.

One helper may be placed behind caboose if of steel underframe construction and cars ahead of caboose are not rear end cars; otherwise cut in ahead of twenty-five per cent of tonnage, or more if necessary to cut in ahead of all rear end cars; or if in opinion of conductor conditions are favorable helpers may be put on head end of train. Road engines double heading between Tucson and Lordsburg may be put on head end provided the tonnage is not in excess of 5000 Ms.

Engines placing loaded cars on highline spur track at Granite Spur will not handle more than two loads at one time, using sufficient other cars between the loads and engine to avoid engines passing highline spur switch.

Santa Fe and Southern Pacific trains may jointly use tracks at east and west end of Union Depot, Phoenix. Yard and light engines must take every precaution possible to avoid delaying first class trains on all tracks within Union Depot zone. Trains will approach switch at entrance to Union Depot tracks prepared to stop and will proceed only when track is known to be clear.

Second main track between east end Phoenix yard and Kendall east switch, may be used by freight trains when authorized by train order. Single track rules apply.

Entrance to Tovrea Packing Co. plant, Tovrea, protected by gates, which must be kept closed and locked, when not in use.

Between Buttes and Zellweger and between Rock Quarry and Christmas look out for rock and land slides.

Entrance to R. C. C. Co. plant, Hayden, protected by gates which must be closed and locked at night.

Cars must not be detached in motion to spur at Peak.

Westward freight trains take full tank of water at Maricopa and eastward freight trains at Sentinel.

Look out for cars on west leg of wye Picacho.

Look out for ice and rubbish alongside tracks P. F. E. yard, Tucson.

Westward trains except first class and light engines must not pass crossover switch near signal 9851 Tucson yard without proceed signal from yardman.

Eastward freight trains take water at Benson unless dispatcher instructs otherwise. Westward trains take water at Sibyl only when it will avoid stopping at Benson.

Helper engines must not make continued backward movement between Steins and San Simon and must turn at San Simon before tying up.

In cuts between Naches and Peridot look out for rock and land slides.

FOLLOWING TRACKS NOT TO BE USED BY 3300 OR HEAVIER CLASS ENGINES

Creamery Branch.
Maricopa Branch sidings.
Christmas Branch between Winkelman and Christmas.
Christmas Branch sidings and spurs.

FOLLOWING TRACKS NOT TO BE USED BY 3200 OR HEAVIER CLASS ENGINES

Blaisdell	Spur.
Granite Spur	Spur (except 3600—Class F-I, engines may use tracks No. 1 and 2 between main line switch and high-line switch only).
Wellton	Spur.
Tacna	Spur.
Colfred	Spur.
Pembroke	Spur.
Mohawk	West spur.
Stoval	Spur.
Musina	Spur.
Stanwix	Spur.
Sentinel	Pump spur.
Tartron	Spur.
Smurr	Spur.
Maricopa	North house. No. 4. No. 5. South leg wye, pump house spur.
Hassayampa	Spur.
Cactus Pit tracks.	
Tempe	Tempe Milling Co., Phoenix Mill and gravel pit spurs. East leg wye, house track, tracks 2 and 3.
Mesa	Sawdey & Hunt, Standard Oil, & Texas Oil spurs. Shell Oil spur. Independent Cotton & Oil Co. spur. Mutual Cotton Oil spur.
Mesa—North Mesa	Spurs.
Pozo	Spur.
Nogales Branch.	
Mescal	Well spur, except first two rail lengths.
Benson	Oil spur, team, south coal, hotel.
Middle yard wye track; except in emergency SP-1, SP-2, F-1, F-3, F-4, F-5, MK-5, MK-6, MK-7, MK-8 and MK-9 class engines may turn on wye, but must head onto east leg.	
Fairbank Branch	Yard and wye.
Willcox	Spur track from stock track.
Bowie	Oil spur east of west end of pump house.
Lordsburg	Transfer and house tracks, A. & N. M. yard.
Globe Branch.	

SPECIAL INSTRUCTIONS—Continued

FOLLOWING TRACKS NOT TO BE USED BY ABOVE CLASS ENGINES NOR BY CONSOLIDATION OR ATLANTIC TYPE ENGINES:

Buckeye	Mutual Cotton Oil and gin spurs.
South track between Continental Pkg. Co. and Salt River bridge.	
Creamery Branch	Siding and rock quarry spur.
Creamery	Track beyond creamery plant.
Frankenburg	Spur (nor 1800 class).
Tempe Pumping Plant	Spur.
Mesa	Drew's spur (must back in).
Magma	Spur.
West Chandler	Wye and stock corrals.
Sacate	Wood spur.

Engines must not use:

Spurs: Florence, Burns, Sacate. Raso, stem of wye.

SPEED RESTRICTIONS

MAXIMUM SPEED OF PASSENGER TRAINS MUST NOT EXCEED 50 MILES PER HOUR EXCEPT THAT BETWEEN YUMA AND TUCSON, VIA EITHER PHOENIX LINE OR GILA LINE, BETWEEN MANZORO AND DRURY AND BETWEEN BOWIE AND EAST SWITCH BAWTRY THE MAXIMUM SPEED MUST NOT EXCEED 60 MILES PER HOUR.

MAXIMUM SPEED OF FREIGHT OR MIXED TRAINS MUST NOT EXCEED 35 MILES PER HOUR EXCEPT THAT BETWEEN YUMA AND TUCSON, VIA EITHER PHOENIX LINE OR GILA LINE, BETWEEN MANZORO AND DRURY AND BETWEEN BOWIE AND EAST SWITCH BAWTRY THE MAXIMUM SPEED MUST NOT EXCEED 40 MILES HER HOUR.

NO PASSENGER TRAIN SHALL EXCEED A SPEED OF 40 MILES PER HOUR AROUND CURVES OF 5 TO 6 DEG. AND 30 MILES PER HOUR AROUND CURVES OF OVER 6 DEG., AND BETWEEN POINTS WHERE MAXIMUM SPEED IS 60 MILES PER HOUR SHALL NOT EXCEED A SPEED OF 50 MILES PER HOUR AROUND CURVES OF LESS THAN 5 DEGREES.

NO FREIGHT OR MIXED TRAIN SHALL EXCEED A SPEED OF 30 MILES PER HOUR AROUND CURVES OF 5 TO 6 DEG., AND 25 MILES PER HOUR AROUND CURVES OF OVER 6 DEG.

MAXIMUM SPEED OF SP-1, SP-2, F-1, F-3, F-4, AND F-5, CLASS ENGINES IN PASSENGER SERVICE IS AS FOLLOWS:

(a) Tangent track—45 miles per hour.

(b) Type F1 (Nos. 3600 to 3652 incl.). Restricted to same speeds on curves as applicable to other passenger power.

(c) Type F3-F4-F5 (Nos. 3653 upward) and SP1-SP2. Restricted to 25 miles per hour on curves of 7 to 10 degrees inclusive, and on curves of less than 7 degrees subject to same restrictions applicable to engines of lighter type.

MAXIMUM ALLOWABLE SPEED OF CONSOLIDATED AND MIKADO ENGINES (57 INCH DRIVERS) IN PASSENGER SERVICE WILL BE 45 MILES PER HOUR. MIKADO ENGINES (63 INCH DRIVERS) IN PASSENGER SERVICE 50 MILES PER HOUR.

Trains must not exceed the speed in miles per hour shown below:

PAGE	BETWEEN	Passenger	Freight or mixed	Engines or Motor cars Backing
......	Through interlocking limits with caution	......	......	......
......	Through crossovers, turnouts, except Dome, and two east crossovers Wellton	10	10	10
2-3	Yuma yard, Colorado River bridge and switch 800 ft. east of subway	15	15	15
2-3	Dome, and two east crossovers Wellton	20	20	15
2-3-4-5	Phoenix yard, 19th Ave. and 18th St.	15	15	15
4-5	Kendall and Phoenix yard limits (second track)	25	25	15
4-5	Kendall and Salt River bridge (south track)	15	15	15
4-5	Mesa yard, west switch and east city limits	20	20	20
4-5	Mesa and North Mesa	15	15	15
4-5	Tucson, North yard, South Line Jct. and signal 9851	15	15	15
4-5	Tucson, North yard, westward main track, signal 9883 and signal 9851	......	20	20
6	Two east crossovers Wellton	20	20	15
6	Litchfield Branch	20	20	15
6	Maricopa Branch	20	20	20
6	Maricopa, east leg wye	20	20	20
6-7	Gila yard, west and east switches	15	15	15
7	Creamery Branch	20	20	15
7	Florence Branch	20	20	20
8	Mescal interlocking limits, when using normal route	35	25	15
8	Mescal, other crossovers and turnouts	15	15	10
8	Benson yard	30	30	20
8	Bowie yard, west and east switches	15	15	15
9	McQueen and Price	40	30	20
9	Price and Winkleman	30	30	20
9	Winkelman and Christmas	10	10	10
9	Ray Junction yard	15	15	15
9	Hayden Junction yard	15	15	15
9	R. & G. V. R. R.	15	15	15
9	Tucson, South yard, South Line Jct. and South Yard Jct.	15	15	15
9	Tucson yard, South Line Crossing and North yard, via Nogales Branch	15	15	15
9	Nogales Branch	40	35	20
9	Nogales yard	20	20	20
10	Bowie and Globe	40	30	20
10	Bowie yard	15	15	15
10	Safford yard	15	15	15
10	Globe yard	15	15	15
10	Globe, Broad Street crossing	6	6	6
10	Globe, Old Dominion high line	......	10	10
10	Globe and Miami	20	20	20
10	Miami yard	15	15	15
10	Miami yard limits and Live Oak	15	15	10

SPEED OF TRAINS OVER OIL BUFFER SPRING SWITCHES

East Yard and Dome.

Westward trains reduce speed to 30 M. P. H. and eastward trains to 20 M. P. H.

Phoenix.

Westward trains reduce speed to 10 M. P. H. passing over oil buffer spring switch at east end of double track, and westward trains from and eastward trains to Union Station reduce speed to 10 M. P. H. passing over oil buffer spring switch west end of freight main track just east of A. T. & S. F. wye.

Stockham.

Westward trains reduce speed to 10 M. P. H. and eastward trains to 30 M. P. H.

SPEED OF TRAINS REGULATED BY ORDINANCES THROUGH CITY LIMITS

PAGE	STATION	M. P. H.
2-3	Yuma street crossings	5
4-5-7	Tempe	20
4-5	Chandler	20
8	Willcox	30
9	Nogales	20
10	Safford	15
10	Pima	15

OTHER MAXIMUM SPEEDS IN MILES PER HOUR AS FOLLOWS:	M. P. H.
4300 class and heavier—passenger and freight service, Maricopa Branch	20
2900 class, 4200 class—in passenger service	40
4000 class—in passenger service	35
Mikado engines between Winkelman and Christmas	10
Yard engines	20
Engines backing coupled in trains or light, on main line	25
" " " " " " " " other lines	20
Engines with broken spring hangers	25
Engines with main rod only removed	30
Engines with side rods only removed	30
Engines with both main and side rods removed	20
Trains handling steam derrick on tangent track, and will observe other speed restrictions for freight trains	25

Engines running light forward must not exceed the maximum speed permitted freight trains unless otherwise directed, except TW class must not exceed 30 miles per hour and the following classes must not exceed 35 miles per hour:

T-1, 2, 7 to 23, 28, 31, 34, 36;
T-3, 5, 25, 26, 32, 33, 37, 40;
C-2 to 10, inclusive;
C-18 to 23, inclusive;
MK-5, 6, 7, 8, 9;
F-1, 3, 4, 5, 6;
SP-1, 2, 3.

1. All cars moved in passenger trains must be equipped with steel-tired or allsteel wheels. Cars not so equipped will be handled in freight trains—passengers, if any, to move on passenger train.

2. (a) Wooden passenger-carrying cars, unless equipped with steel center sills and steel platforms, must not be used in passenger service except on authority of Superintendent.

(b) Speed of trains handling such cars must be restricted as follows:

When consist includes not more than three wooden passenger-carrying cars, maximum speed must not exceed 50 miles per hour.

When consist includes more than three wooden passenger-carrying cars, maximum speed must not exceed 40 miles per hour.

(c) If consist of train includes both wooden and steel passenger-carrying cars, the wooden cars must be kept together and handled on the rear.

3. Wooden baggage, express and other head-end cars, not equipped with steel center sills and steel platforms, may be used when entire consist of train is composed of such equipment, or may be handled on head end of passenger trains, provided consist thereof does not exceed seven cars, and inspection indicates movement can be made with entire safety.

SPEED TABLE

MILES PER HOUR	1 MILE IN Min.Sec.	MILES PER HOUR	1 MILE IN Min. Sec.	MILES PER HOUR	1 MILE IN Min. Sec.	MILES PER HOUR	1 MILE IN Min. Sec.	MILES PER HOUR	1 MILE IN Min. Sec
6	10.00	21	2.51	31	1.56	41	1.27	51	1.11
8	7.30	22	2.43	32	1.52	42	1.25	52	1.09
10	6.00	23	2.36	33	1.49	43	1.23	53	1.08
12	5.00	24	2.30	34	1.45	44	1.21	54	1.07
15	4.00	25	2.24	35	1.42	45	1.20	55	1.06
16	3.45	26	2.18	36	1.40	46	1.18	56	1.04
17	3.31	27	2.13	37	1.37	47	1.16	57	1.03
18	3.20	28	2.08	38	1.34	48	1.15	58	1.02
19	3.09	29	2.04	39	1.33	49	1.13	59	1.01
20	3.00	30	2.00	40	1.30	50	1.12	60	1.00

STRUCTURES LESS THAN STANDARD CLEARANCE

MILE POST	DESCRIPTION	
733.0	Yuma, ice platforms	Side
755.2	Granite Spur, chute on crusher track not clear car higher than ballast car.	
778.0	Gila River bridge	Side
891.0	Agua Fria River bridge	Side
907.0	Phoenix, ice platform	Side
914.0	Salt River bridge	Side
914.4	Tempe, Tempe Milling Co. spur	Side
921.8	Mesa, Texas Oil Co., Drew's spur and ice platform	Side
959.3	Gila River bridge	Side
972.4	Tunnel No. 1 (Christmas Branch)	Overhead and Side
972.5	Gila River bridge (Christmas Branch)	Side
975.4	Rock cut (Christmas Branch)	Side
985.3	Gila River bridge (Christmas Branch)	Side
987.8	Ray Junction, water tank spout	Overhead and Side
988.5	Tunnel No. 2 (Christmas Branch)	Overhead and Side
990.0	Tunnel No. 3 (Christmas Branch)	Overhead and Side
1007.0	Finney, ore chute	Side
1009.2	Tunnel No. 4 (Christmas Branch)	Overhead and Side
1029.6	Tubac, water tank spout	Overhead and Side
1049.8	Nogales, ice platform	Side
1008.1	Cienega Creek bridge	Side
1033.6	San Pedro River bridge	Side
1114.2	San Simon, water tank spout	Overhead and Side
1137.5	Safford, water tank and spout	Overhead and Side
1201.0	San Carlos, water tank and spout	Overhead and Side
1234.1	Inspiration spur, chute	Side
	Globe Branch, pile driver S. P. 2534 will not clear water spouts	

Employes are warned that it is dangerous to ride on top or sides of cars at above mentioned points.

SURGEONS

LOCATION	NAME	TITLE
San Francisco Cal.	Dr. W. B. Coffey	Chief Surgeon and Manager
Yuma Ariz.	Dr. John W. Stacey	District Surgeon
Yuma "	Dr Charles S. Powell	Asst. District Surgeon
Litchfield "	Dr. R. L. Penn	District Surgeon
Buckeye "	Dr. G. C. Rubel	District Surgeon
Phoenix "	Dr. Geo. M. Brockway	District Surgeon
Phoenix "	Dr. A. M. Tuthill	Assistant District Surgeon
Phoenix "	Dr. J. E. Drane	Assistant District Surgeon
Phoenix "	Dr. D. F. Harbridge	Oculist
Phoenix "	Dr. W. A. Schwartz	Aurist
Phoenix "	Dr. Win Wylie	Consulting Surgeon
Phoenix "	Dr. W. O. Sweek	Consulting Surgeon
Tempe "	Dr. R. J. Stroud	District Surgeon
Mesa "	Dr. R. F. Palmer	District Surgeon
Mesa "	Dr. W. S. Sharp	Assistant District Surgeon
Chandler "	Dr. Jas. M. Meason	District Surgeon
Chandler "	C. L. Pohle	Associate District Surgeon
Coolidge "	Dr. H. E. Pinkerton	Emergency Surgeon
Gilbert "	Dr. L. M. Thompkins	Emergency Surgeon
Florence "	Dr. G. E. Huffman	District Surgeon
Ray "	Dr. O. E. Utzinger	District Surgeon
Hayden "	Dr. C. B. Huestis	District Surgeon
Gila "	Dr. G. T. Wells	District Surgeon
Casa Grande "	Dr. J. E. Redden	District Surgeon
Tucson "	Dr. C. A. Thomas	Assistant to Chief Surgeon
Tucson "	Dr. S. C. Davis	Division Surgeon
Tucson "	Dr. V. G. Presson	Assistant Surgeon
Tucson "	Dr. R. A. Wilson	Assistant Surgeon
Tucson "	Dr. E. D. Wells	Oculist and Aurist
Nogales "	Dr. W. F. Chenoweth	District Surgeon
Benson "	Dr. J. N. Morrison	District Surgeon
Benson "	Dr. Harry Tapperman	District Surgeon
Willcox "	Dr. J. C. Wilson	District Surgeon
Willcox "	Dr. B. E. Briscoe	Assistant District Surgeon
Bowie "	Dr. F. W. Parrish	District Surgeon
Lordsburg N. M.	Dr. C. B. Austin	District Surgeon
Safford Ariz.	Dr. J. N. Stratton	District Surgeon
San Carlos "	Dr. F. A. Kennedy	District Surgeon
Globe "	Dr. Clarence Gunter	District Surgeon
Globe "	Dr. R. D. Kennedy	Assistant District Surgeon
Globe "	Dr. W. A. Holt	Consulting Surgeon
Miami "	Dr. C. M. Cron	District Surgeon
Miami "	Dr. J. E. Bacon	Assistant District Surgeon

HOSPITALS

General Hospital, Southern Pacific Hospital	San Francisco, Calif.
Division Hospitals, St. Mary's Hospital	Tucson, Ariz.
St. Joseph's Hospital	Phoenix, Ariz.

LOCATION HOSPITAL STRETCHERS

Yuma, Gila, Maricopa, Phoenix, Tempe, Ray Junction, Tucson, Benson, Bowie, Lordsburg, Globe.

AVERAGE TARE WEIGHTS OF PASSENGER TRAIN CARS

Class	All Steel	Steel Underframe	Wood
Baggage, 60 ft.	93,070		
" 66 ft.	127,610		
" 70 ft.	122,620		
" 70 ft. (With Auto. End Door)	125,800		
" (Dynamo)	98,730		
"		87,120	81,120
Baggage and Mail, 60 ft.	103,620		
" " " 69 ft.	124,760		
" " " 70 ft.	129,140		
" " "		103,590	99,200
Baggage and Passenger	108,675	112,640	76,320
Express, Refr.—N. P. Ry.		74,000	60,000
" " —G. N. Ry.			70,000
" " —A. R. E. No. 40- 154		78,000	
" " — " " 155- 224		89,000	
" " — " " 500- 506		110,000	
" " — " " 1101-1175		85,000	
" " —P. F. E. " 500- 799		83,000	
Tea and Silk			48,180
Express, Horse	133,050		81,033
Postal	112,120		
Postal Storage, 40 ft.	74,530		
" " 60 ft.	105,120		
Club	146,210	122,300	
Official	170,700	155,370	109,370
Chair, 60 ft.	100,620		84,740
" 74 ft.	163,900		
Coaches, 60 ft.	98,130		
" 70 ft.	137,640		
" 72 ft.	139,660		
" 73 ft.	148,040		
" 72 ft. (Interurban)	120,000		
"			81,210
All-Day Lunch, Chair	105,970		
" " Coach	103,875		
Cafe Coach		138,600	
Diner, 70 ft.		135,930	131,040
" 72 ft.	155,330	146,930	134,530
" 77 ft. (Arch Type Roof)	156,000		
" 77 ft. (Clere Story Roof)	161,520	165,530	
" 79 ft.	169,100		
" 80 ft.	175,200		
Cafe Parlor	148,950	161,200	
Lounge	173,000		
Observation, 75 ft.	154,400		
" 77 ft.	173,300		
"		141,870	121,300
Pullman, Observation	164,600	153,000	
" Observation Lounge	171,200		
" Lounge	168,700		
" Parlor	155,600	147,500	
" Bedroom Car	167,600		
" Standard Sleeper	164,600	144,000	
" Tourist	140,600	133,000	
Rail Car, Gas-Electric, 400 H. P.	158,400		
" " Gas-Electric, 600 H. P.	167,200		
" " McKeen, 55 ft.	64,140		
" " " 70 ft.	71,530		
Observation (Open Top)			62,000

DIVISION MILEAGE

Main Lines

Yuma to Lordsburg	S. P. R. R.		412.60	
Tucson to South Yard Junction	E. P. & S. W. R. R.		7.69	
Wellton to Picacho via Phoenix	A. E. R. R.	195.91		
	P. & E. R. R.	13.10	209.01	
Total Main Lines				629.30

Branches

Benson-Fairbank	S. P. R. R.	Benson Jct., Benson-Fairbank Branch to Benson, Initial Point E. P. & S.W. R. R.		.64	
Christmas	P. & E. R. R.	McQueen to Christmas	74.41		
	A. E. R. R.	McQueen to Christmas	12.26		
	R. & G. V. R. R.	Hayden Jct. to Hayden	.32	86.99	
Florence	A. E. R. R.	Florence Jct. to Poston		6.04	
Globe	A. E. R. R.	Bowie to Inspiration Jct.		136.14	
Litchfield	A. E. R. R.	Litchfield to Litchfield Park		4.92	
Maricopa	A. E. R. R.	Maricopa to Tempe Jct.		25.78	
Creamery	A. E. R. R.	At Tempe	.47		
	P. & E. R. R.	Tempe to Normal Jct.	1.74	2.21	
Mesa	P. & E. R. R.	At Mesa	.25		
	A. E. R. R.	Mesa to North Mesa	1.65	1.90	
Nogales	S. P. R. R.	At Tucson	.63		
	T. & N. R. R.	T. & N. R. R. Jct. to Calabasas	55.38		
	N. M. & A. R. R.	Calabasas to Nogales	9.78	65.79	
Total Branches					330.41
Total					959.71

RATING OF LOCOMOTIVES—TUCSON DIVISION

IN Ms OF 1,000 LBS. BACK OF TENDER

Nominal Class	OFFICIAL CLASS	ENGINE NUMBERS	Boiler Pressure	Yuma to Tucson Via Gila	Tucson to Yuma Via Gila	Yuma to Tucson Via Phoenix	Tucson to Yuma Via Phoenix	Tucson to Nogales	Nogales to Tucson	Maricopa and Tempe Jct.	McQueen to Christmas	Christmas to McQueen
				Helper	Single	Single	Single	Single	Single	Single	Single	Single
M- 4	M-63 20/28 126	1615 to 1719	190	3050	2900	3050	2900			4100	3150	3750
M- 4	M-63 20/28 128-S											
M- 4	M-63 20/28 135-S											
M- 9	M-63 21/28 150-S	1828 to 1830	210	3950	3800	3950	3800			5050	4100	4900
M-11	M-63 22/28 153-S	1832 to 1835	200	4150	3950	4150	3950			5250	4250	5100
M-11	M-63 22/28 162-SF											
T- 1	T-63 20/26 112	2235 to 2273	180	2700	2600	2700	2600					
T- 2	T-63 19/24 105	2227	160	1950	1850	1950	1850	1350	1700			
C- 8	C-57 22/30 192-S	2513 to 2599, 2698 to 2860	210	4800	4600	4800	4600	3000	4100	6760	4700	5600
C-9, 10	C-57 22/30 200-SF											
C-9, 10	C-57 22/30 194-S											
TW- 3	TW-50 20/26 120	2932 to 2945	170	3050	2900	3050	2900	2050	2600			
A- 3	A-81 20/28 112-S	3025 to 3071	210	2650	2600	2650	2600	1850	2350	3450	2750	3300
A- 5	A-81 20/28 108-S	3072, 3074										
A- 5	A-81 21/28 108-S	3073	210	2950	2900	2950	2900	2050	2650	3800	3050	3700
P-12	P-73 27/28 189-S-F	3120 to 3129	190	5000	4750	5000	4750					
Mk-2, 4	Mk-57 23½/30 206-S	3200 to 3240	210	5600	5400	5600	5400			7400	5650	6750
Mk-2, 4	Mk-57 23½/30 206-SF											
Mk-5, 6	Mk-63 26/28 210-S	3241 to 3277	210	6000	5750	6000	5750			7700	6100	7300
Mk-5, 6	Mk-63 26/28 210-SF											
Mk-7, 8, 9	Mk-63 29/30 247-S	3300 to 3324	176	5700	6350	5700	6350					
Mk-7, 8, 9	Mk-63 29/30 257-SF											
F- 1	F-63 27½/32 273-S	3600 to 3652	200	5900	6700	5900	6700					
F-4, 5	F-63 29½/32 306/B-61-SF	3668 to 3763	200	6600	8000	6600	8000					
F- 5	F-63 29½/32 306/B-62-SF	3764 to 3768										
Mt-1,3,4,5	Mt-73 28/30 246/B-60-SF	4300 to 4376	210	5700	6400	5700	6400					
Mt-2	Mt-73 29/30-262-SF	4385 to 4390	210	5850	6600	5850	6600					
SP-1	SP-63 $\frac{25}{28-32}$ 316/B-60-SF.	5000 to 5048	225	8000	8000	8000	8000					
SP-2, 3	SP-63 $\frac{25}{28-32}$ 317/B-61-SF.											
Allowance for empty and underloaded cars		Less than 40 Ms.		6	6	6	6	6	6	6	6	6
		40 Ms. to 50 Ms.		3	3	3	3	3	3	3	3	3
		More than 50 Ms.		0	0	0	0	0	0	0	0	0
				Helper 0.5 Yuma to East Yard Helper 1.0 Except Helper C-8, 9, 10 with Classes Mk-7, 8, 9 F-1, 4, 5; Mt-1, 2, 3, 4, 5 SP-1, 2, 3 Pembroke to Mohawk, Lava to Sentinel, Gila to Estrella	Double Kim to Mohawk	Double Saddle to Harqua						

RATING OF LOCOMOTIVES—TUCSON DIVISION—Continued

IN Ms OF 1,000 LBS. BACK OF TENDER

Nominal Class	OFFICIAL CLASS	ENGINE NUMBERS	Boiler Pressure	EASTWARD				WESTWARD					EASTWARD					WESTWARD				
				Tucson-Mescal	Benson-Dragoon San Simon Steins	Mescal-Benson Dragoon-Willcox Raso-San Simon Steins-Conrad Pyra-Lordsburg	Willcox-Raso Conrad-Pyra	Lordsburg-Pyra	Pyra-Mondel Steins-San Simon Raso-2 M. E. Cochise Dragoon-Benson Mescal-Tucson	San Simon Bowie	Bowie-Raso 2 M. E. Cochise-Dragoon	Mondel-Steins Benson-Mescal	Bowie-San Carlos	San Carlos Cutter	Cutter-Pinal	Pinal-Globe	Globe-Miami	Miami-Globe	Globe-Pinal	Pinal-San Carlos	San Carlos Tanque	Tanque-Bowie
				Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single
T-36	T-63 20/26 118	2102 to 2104	190	1500	1150	6000	2250	2500	6000	2800	1700	1150	2850	1750	750	5000	1150	800	750	5000	2400	1900
T-37	T-70 24/28 146-S	2105, 2106	175	2000	1550	6000	3000	3350	6000	3750	2300	1550	3700	2250	950	6000	1500	1050	950	6000	3150	2400
C-8	C-57 22/30 192-S	2513 to 2599 2698 to 2860	210	2500	1950	8000	3750	4150	8000	4650	2900	1950	4900	3000	1310	8000	2000	1400	1310	8000	4170	3220
C-9, 10	C-57 22/30 200-SF																					
C-9, 10	C-57 22/30 194-S																					
TW-3	TW-50 20/26 120	2932 to 2945	170	1600	1250	6000	2400	2650	6000	2950	1850	1250	3200	1950	850	7000	1300	900	850	7000	2700	2100
C-19	C-57 22½/28 178-S	3410 to 3426	200	2400	1900	8000	3600	4000	8000	4450	2750	1900	4500	2750	1200	8000	1850	1300	1200	8000	3850	3000
P-12	P-73 27/28 189-SF	3120 to 3129	190	2600	2000	8000	3900	4350	8000	4900	3000	2000	4850	2980	1300	8000	1980	1390	1300	8000	4100	3200
Mk-5, 6	Mk-63 26/28 210-S	3241 to 3277	210	3150	2450	8000	4700	5250	8000	5850	3650	2450										
Mk-5, 6	Mk-63 26/28 210-SF																					
Mk-7, 8, 9	Mk-63 29/30 247-S	3300 to 3324	176	3500	2750	8000	5200	5800	8000	6500	4000	2750										
Mk-7, 8, 9	Mk-63 29/30 257-SF																					
F-1	F-63 27½/32 273-S	3600 to 3652	200	3700	2900	10000	5500	6100	10000	6850	4250	2900										
F-3	F-63 29½/32 307-S	3653 to 3667	200	4200	3300	10000	6300	7000	10000	7800	4850	3300										
F-4, 5	F-63 29½/32 306/B-61SF	3668 to 3763	200	4750	3750	10000	7100	7850	10000	8800	5450	3750										
F-5	F-63 29½/32 306/B-62-SF	3764 to 3768																				
Mt-1, 3, 4, 5	Mt-73 28/30 246/B-60-SF	4300 to 4376	210	3800	2950	10000	5650	6300	10000	7050	4350	2950										
Mt-2	Mt-73 29/30 262-SF	4385 to 4390	210	3550	2800	10000	5350	5950	10000	6700	4100	2800										
SP-1	SP-63 $\frac{25}{28-32}$ 316/B-60-SF	5000 to 5048	225	5350	4350	10000	8000	8850	10000	10000	6150	4350										
SP-2, 3	SP-63 $\frac{25}{28-32}$ 317/B-61-SF																					
	Allowance for empty and underloaded cars	Less than 40 M's		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
		40 M's to 50 M's		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		More than 50 M's		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

These ratings include the total weight of train, exclusive of engine and tender, which the different class of locomotives will haul in each direction between the stations shown.

CLASS "C"—Consolidation
"T"—Ten-wheelers
"A"—Atlantic
"M"—Moguls
"TW"—Twelve-wheelers
"Mk"—Mikado
"P"—Pacific
"F"—2-10-2
"MT"—Mountain
"SP"—Southern Pacific

Example:—Consolidation engine having 57-inch drivers, cylinders 22-inch diameter and 30-inch stroke, and weighing 187,000 pounds on drivers:

C-57 $\frac{22}{30}$ 187

ASSISTANT SUPERINTENDENT

L. C. GRAM

TRAINMASTERS
B. S. BAUMANN.................... Yuma
G. A. BAYS.................... Phoenix
J. J. COWIN.................... Tucson

CHIEF TRAIN DISPATCHER

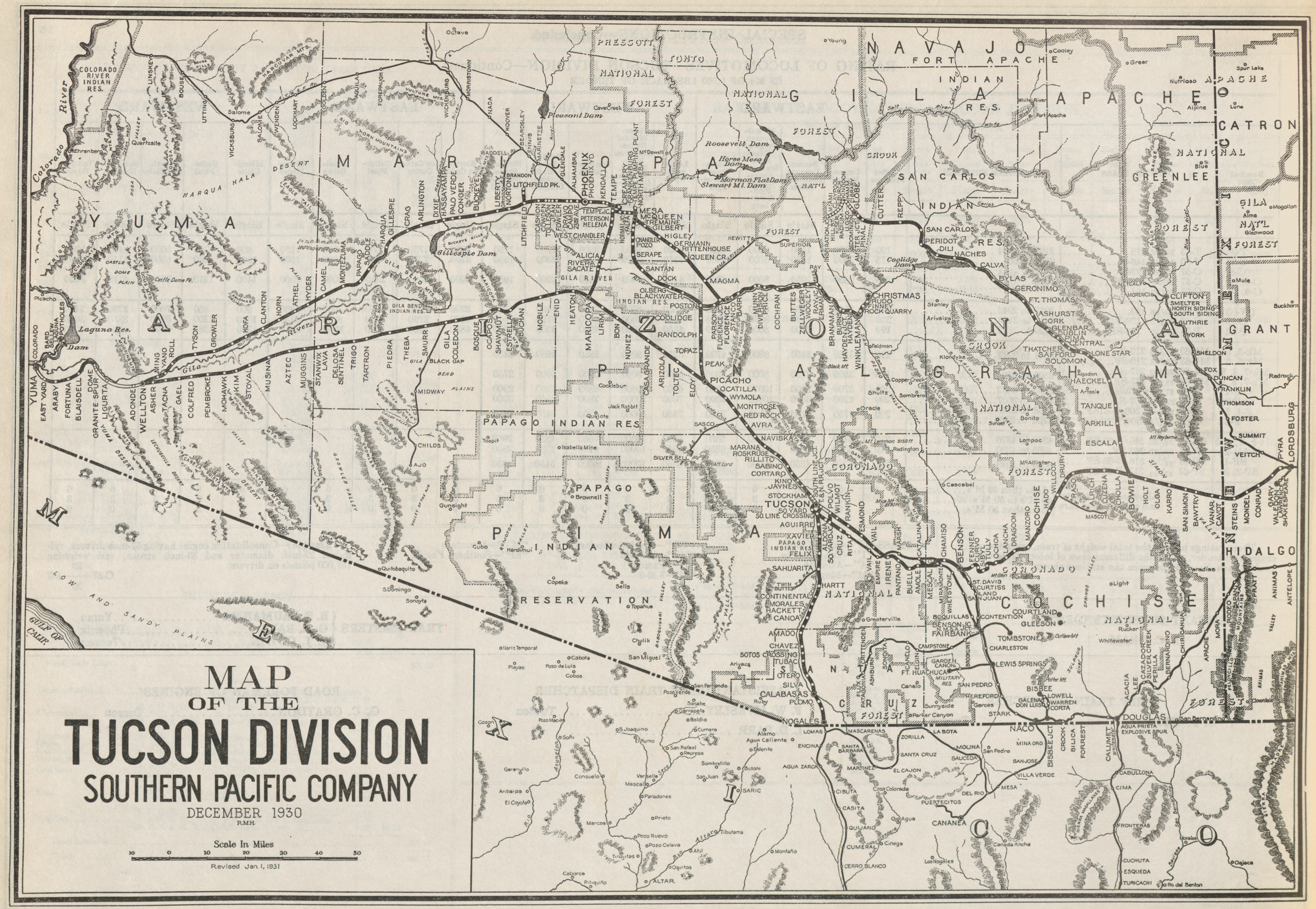
S. F. HYDE.............................. Tucson

ASSISTANT CHIEF TRAIN DISPATCHER

F. W. LIVESLEY........................ Tucson
L. D. BARR............................ "

ROAD FOREMAN OF ENGINES

G. C. GRAYDON..................... Tucson


YUMA
MARICOPA
ARIZONA
PIMA
PINAL
GILA
GRAHAM
GREENLEE
COCHISE
SANTA CRUZ
APACHE
CATRON
GRANT
HIDALGO
NEW MEXICO
MEXICO
GULF OF CALIF.
Colorado River
Gila River
COLORADO RIVER INDIAN RES.
PAPAGO INDIAN RES.
PAPAGO INDIAN RESERVATION
GILA BEND INDIAN RES.
GILA RIVER INDIAN RES.
SAN CARLOS INDIAN RES.
FORT APACHE INDIAN RES.
NAVAJO
PRESCOTT NATIONAL FOREST
TONTO NATIONAL FOREST
CROOK NATIONAL FOREST
CORONADO NATIONAL FOREST
APACHE NATIONAL FOREST
GILA NAT'L FOREST
HARQUA HALA DESERT
LOW AND SANDY PLAINS
Roosevelt Dam
Horse Mesa Dam
Mormon Flat Dam
Stewart Mt. Dam
Coolidge Dam
Gillespie Dam
Pleasant Dam
Laguna Res.
YUMA
WELLTON
GILA BEND
AJO
PHOENIX
TEMPE
MESA
CHANDLER
MARICOPA
CASA GRANDE
COOLIDGE
FLORENCE
PICACHO
RED ROCK
TUCSON
BENSON
NOGALES
FAIRBANK
TOMBSTONE
BISBEE
NACO
DOUGLAS
COCHISE
WILLCOX
BOWIE
SAN SIMON
STEINS
LORDSBURG
GLOBE
MIAMI
HAYDEN
WINKELMAN
CHRISTMAS
RAY
SAN CARLOS
GERONIMO
FT. THOMAS
SAFFORD
SOLOMON
CLIFTON
DUNCAN
CANANEA
AGUA PRIETA
CABULLONA
NACOZARI
ALTAR
FRONTERAS
Scale In Miles
10 0 10 20 30 40 50

MAP OF THE TUCSON DIVISION
SOUTHERN PACIFIC COMPANY
DECEMBER 1930

R.M.H.

Revised Jan. 1, 1931